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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,293	03/25/2004	Jens Meintschel	MB 390	6050

7590 01/04/2005

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EXAMINER

ESHETE, ZELALEM

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/809,293	Applicant(s) <i>ca</i> MEINTSCHEL ET AL.	
	Examiner Zelal m Eshet	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/25/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Axmacher et al. (6,523,512) in view of Yu (4,850,247).

Regarding claim 1: Axmacher discloses a device for the relative angular adjustment of camshaft of an internal combustion engine with respect to a drive wheel driving the camshaft (see abstract; figure 2), comprising an "epicyclic gear structure" having drive-side ring wheel (see numeral 2) connected to the drive wheel (see numeral 6), planet wheel (see numeral 3) and a central sun wheel (see adjacent numeral 3), an actuating means connected to, and driving the central sun wheel as function of requirements (see numeral 5), and a drive connection from the epicyclic gear structure the camshaft (see numeral 1), said drive connection being formed by an output-side ring wheel (see numeral 1.1) which is in meshing engagement with the planet wheel (see numeral 3) and which has number of teeth differing from that of the drive-side ring wheel (see column 3, lines 49 to 61).

Axmacher fails to disclose the use of planet and sun gears.

However, Yu teaches the use of epicyclic gear structure using the planetary and sun gears. Yu further teaches that the planetary gears are able to work properly without a carrier (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Axmacher's device by replacing the "planet wheel" and "sun wheel" with planet gears and sun gear as taught by Yu in order to implement an alternative motion control means that is able to work without a carrier as taught by Yu.

Regarding claim 2: Axmacher discloses the output-side ring wheel has a larger number of teeth than the drive-side ring wheel (see column 3, lines 49 to 61).

Regarding claim 3: Axmacher discloses the ring wheel (see numeral 2) has "pot-shaped" contour with an open side and the ring wheel (see numeral 1.1) is axially inserted into the interior of the ring wheel in such way that the two ring wheels are arranged coaxially adjacent one another with their internal toothing (see numeral 1.2,2.2), 18), and the drive-side ring wheel (see numeral 2) is supported on the output-side ring wheel (see numeral 1.1) via a roller bearing (see figure 2).

Regarding claim 5: Axmacher discloses the "sun wheel" is integral with the shaft or "mounted firmly on drive shaft" of the actuating means which is an electric servomotor (see numerals 4,5).

Allowable Subject Matter

3. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (571) 272-4860. The examiner can normally be reached on Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zelalem Eshete
Examiner
Art Unit 3748

Z


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700